

Appendix for

Where Do Jobs Go When Oil Prices Drop?

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Abstract

In this paper, we estimate a factor augmented vector autoregressive (FAVAR) model to investigate the effect of oil price shocks on total private job flows as well as on industry-level job creation and destruction. Following an unexpected oil price drop in the first year, we find that in oil and gas extraction and support activities for mining exhibit a reduction in job creation and an increase in job destruction. Instead, industries in construction, manufacturing and services exhibit a rise in the net employment change. As a result of the oil price decrease the pace of gross job reallocation slows down. We demonstrate that the increase (decrease) in private job destruction (creation) observed during the first year is primarily driven by the response of closing (expanding) firms in services and manufacturing.

Keywords: oil prices, job flows, job reallocation.

JEL Classification: E24, E32, Q43.

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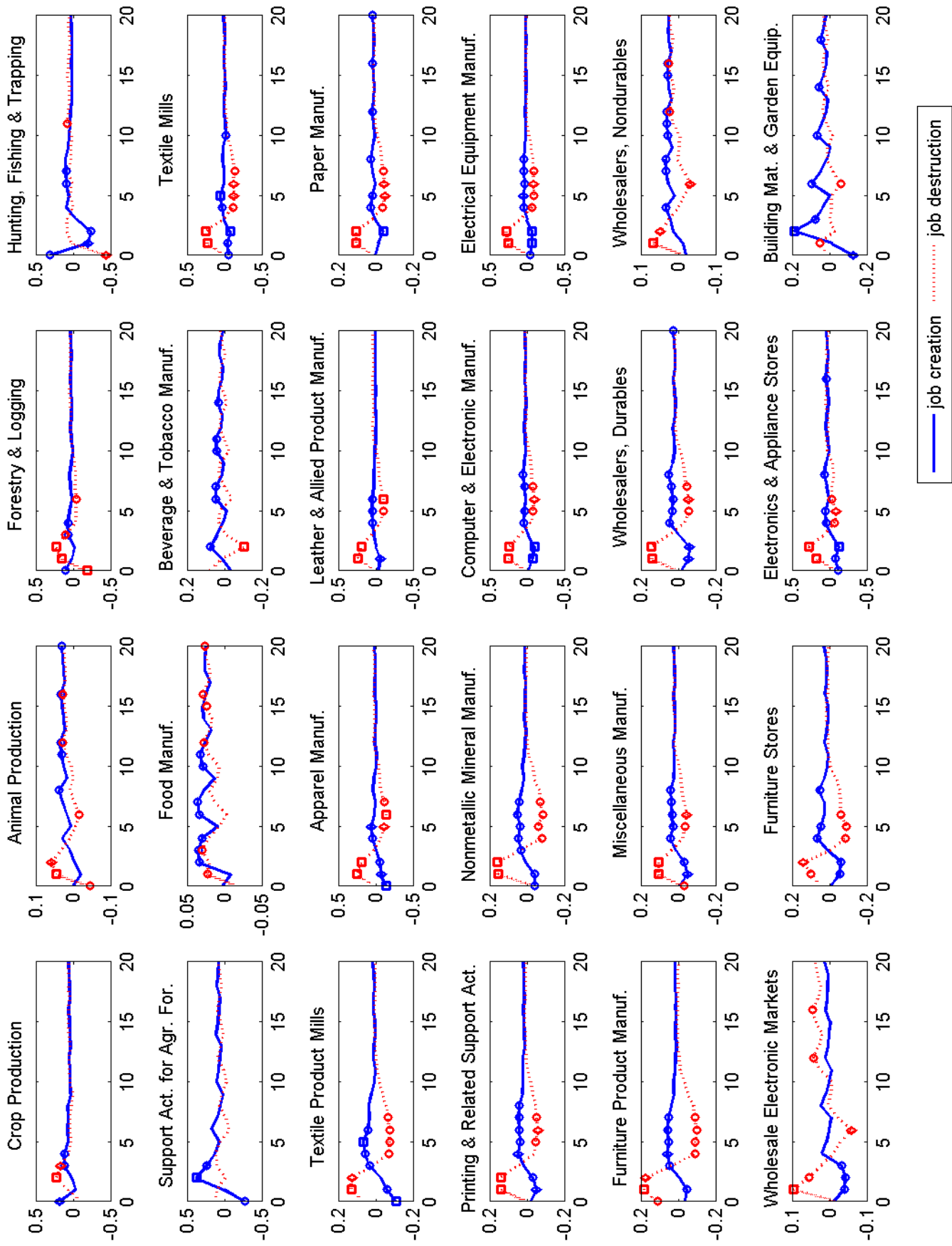
Table A.1a List of industries and their employment share of total private sector expressed in percentage

Code	Industry	Employment share
111	Crop Production	0.49
112	Animal Production	0.20
113	Forestry and Logging	0.06
114	Hunting, Fishing, and Trapping	0.01
115	Support Activities for Agriculture and Forestry	0.30
211	Oil and Gas Extraction	0.14
212	Mining (except Oil and Gas)	0.19
213	Support Activities for Mining	0.26
221	Utilities	0.51
236	Construction of Buildings	1.35
237	Heavy and Civil Engineering Construction	0.82
238	Specialty Trade Contractors	3.73
311	Food Manufacturing	1.35
312	Beverage and Tobacco Product Manufacturing	0.18
313	Textile Mills	0.17
314	Textile Product Mills	0.14
315	Apparel Manufacturing	0.21
316	Leather and Allied Product Manufacturing	0.03
321	Wood Product Manufacturing	0.41
322	Paper Manufacturing	0.41
323	Printing and Related Support Activities	0.53
324	Petroleum and Coal Products Manufacturing	0.10
325	Chemical Manufacturing	0.77
326	Plastics and Rubber Products Manufacturing	0.67
327	Nonmetallic Mineral Product Manufacturing	0.41
331	Primary Metal Manufacturing	0.40
332	Fabricated Metal Product Manufacturing	1.33
333	Machinery Manufacturing	1.03
334	Computer and Electronic Product Manufacturing	1.14
335	Electrical Equipment, Appliance, and Component Manufacturing	0.38
336	Transportation Equipment Manufacturing	1.47
337	Furniture and Related Product Manufacturing	0.43
339	Miscellaneous Manufacturing	0.57
423	Merchant Wholesalers, Durable Goods	2.66
424	Merchant Wholesalers, Nondurable Goods	1.81
425	Wholesale Electronic Markets and Agents and Brokers	0.71
441	Motor Vehicle and Parts Dealers	1.65
442	Furniture and Home Furnishings Stores	0.46
443	Electronics and Appliance Stores	0.47
444	Building Material and Garden Equipment and Supplies Dealers	1.10
445	Food and Beverage Stores	2.60
446	Health and Personal Care Stores	0.88

Table A1b: List of industries and their employment share of total private sector expressed in percentage

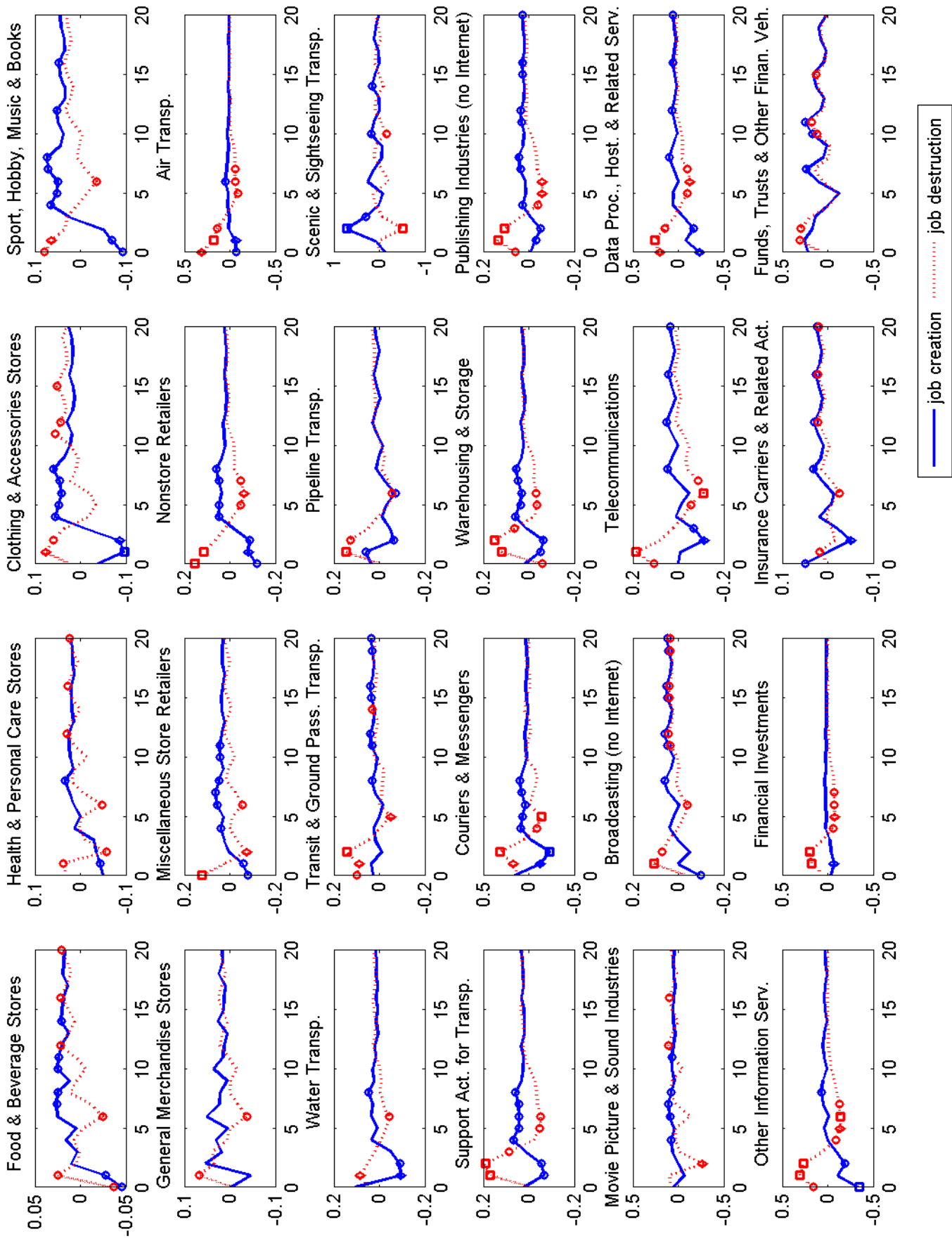
Code	Series ID	Employment share
447	Gasoline Stations	0.78
448	Clothing and Clothing Accessories Stores	1.26
451	Sporting Goods, Hobby, Musical Instrument, and Book Stores	0.57
452	General Merchandise Stores	2.70
453	Miscellaneous Store Retailers	0.78
454	Nonstore Retailers	0.40
481	Air Transportation	0.45
483	Water Transportation	0.05
484	Truck Transportation	1.23
485	Transit and Ground Passenger Transportation	0.37
486	Pipeline Transportation	0.04
487	Scenic and Sightseeing Transportation	0.03
488	Support Activities for Transportation	0.51
492	Couriers and Messengers	0.50
493	Warehousing and Storage	0.56
511	Publishing Industries (except Internet)	0.77
512	Movie Picture and Sound Recording Industries	0.34
515	Broadcasting (except Internet)	0.28
517	Telecommunications	0.90
518	Data Processing, Hosting, and Related Services	0.29
519	Other Information Services	0.10
522	Credit Intermediation and Related Activities	2.44
523	Securities, Commodity Contracts, and Other Financial Investments	0.74
524	Insurance Carriers and Related Activities	1.92
525	Funds, Trusts, and Other Financial Vehicles	0.07
531	Real Estate	1.29
532	Rental and Leasing Services	0.53
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	0.02
541	Professional, Scientific, and Technical Services	6.72
551	Management of Companies and Enterprises	1.68
561	Administrative and Support Services	6.84
562	Waste Management and Remediation Services	0.32
611	Educational Services	2.09
621	Ambulatory Health Care Services	5.02
622	Hospitals	4.05
623	Nursing and Residential Care Facilities	2.70
624	Social Assistance	2.14
711	Performing Arts, Spectator Sports, and Related Industries	0.36
712	Museums, Historical Sites, and Similar Institutions	0.11
713	Amusement, Gambling, and Recreation Industries	1.26
721	Accommodation	1.64
722	Food Services and Drinking Places	8.46
811	Repair and Maintenance	1.10
812	Personal and Laundry Services	1.17
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	1.19

Figure A.1a: Responses of job creation and job destruction to a negative oil price shock of 1 s.d.



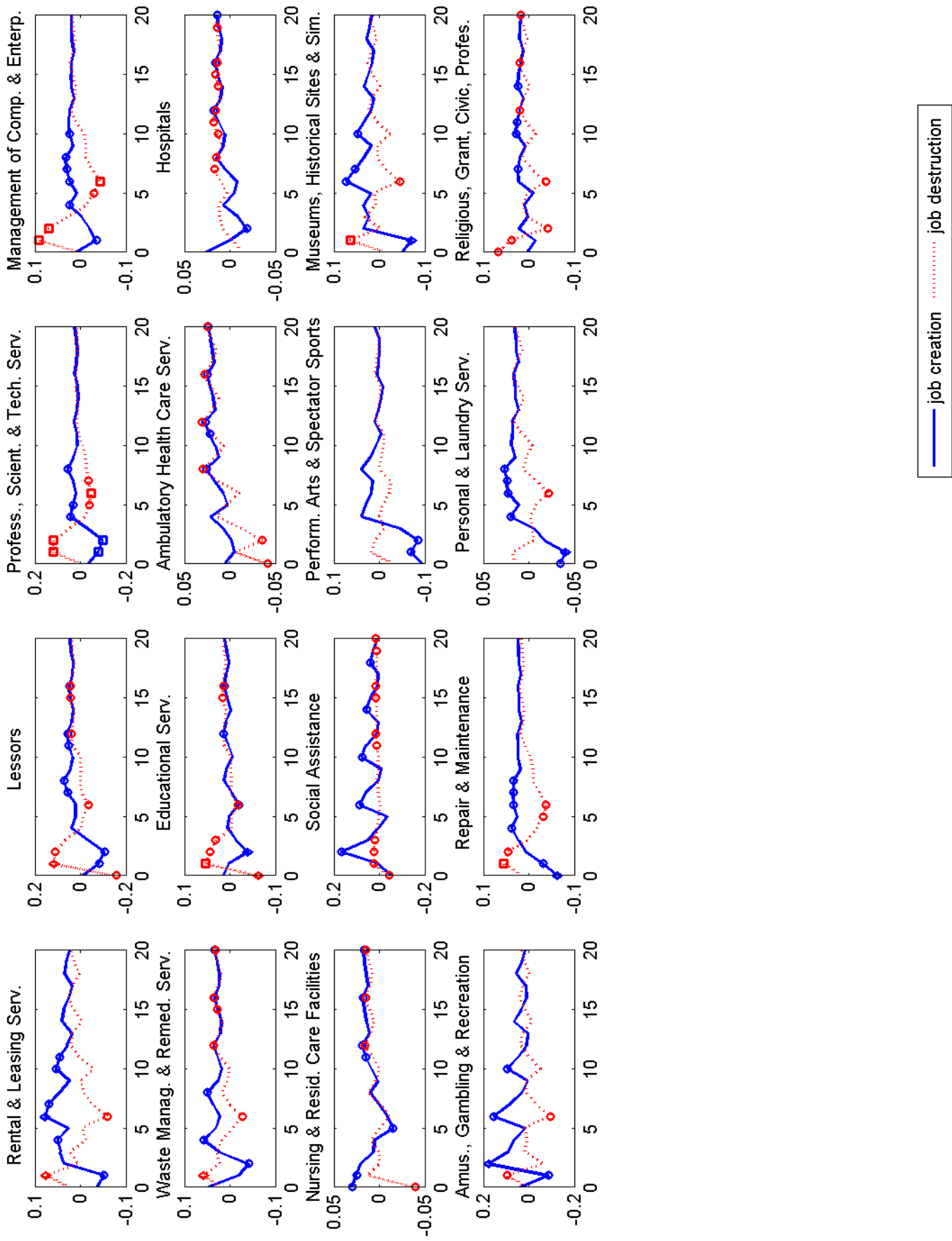
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.1b: Responses of job creation and job destruction to a negative oil price shock of 1 s.d.



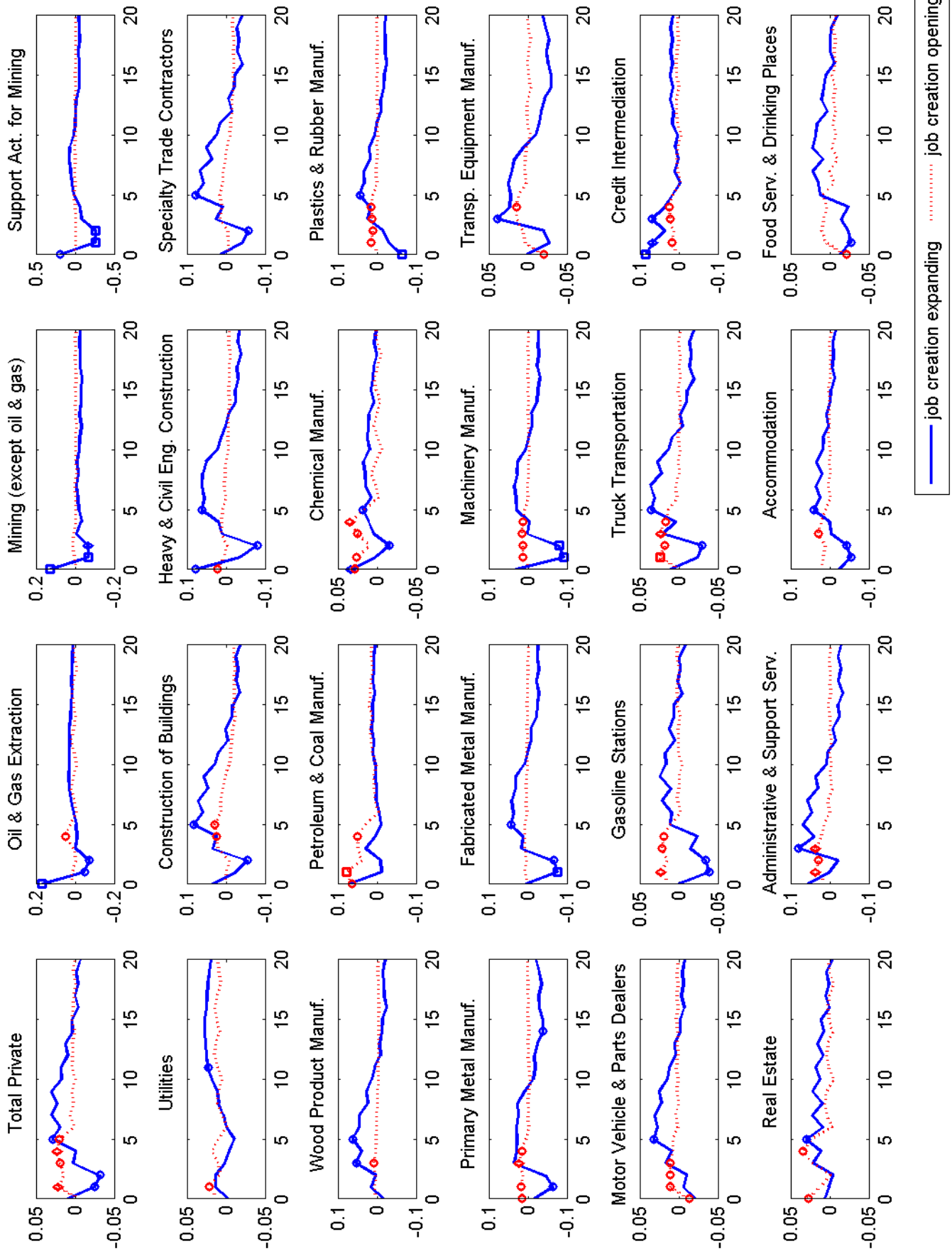
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.1c: Responses of job creation and job destruction to a negative oil price shock of 1 s.d.



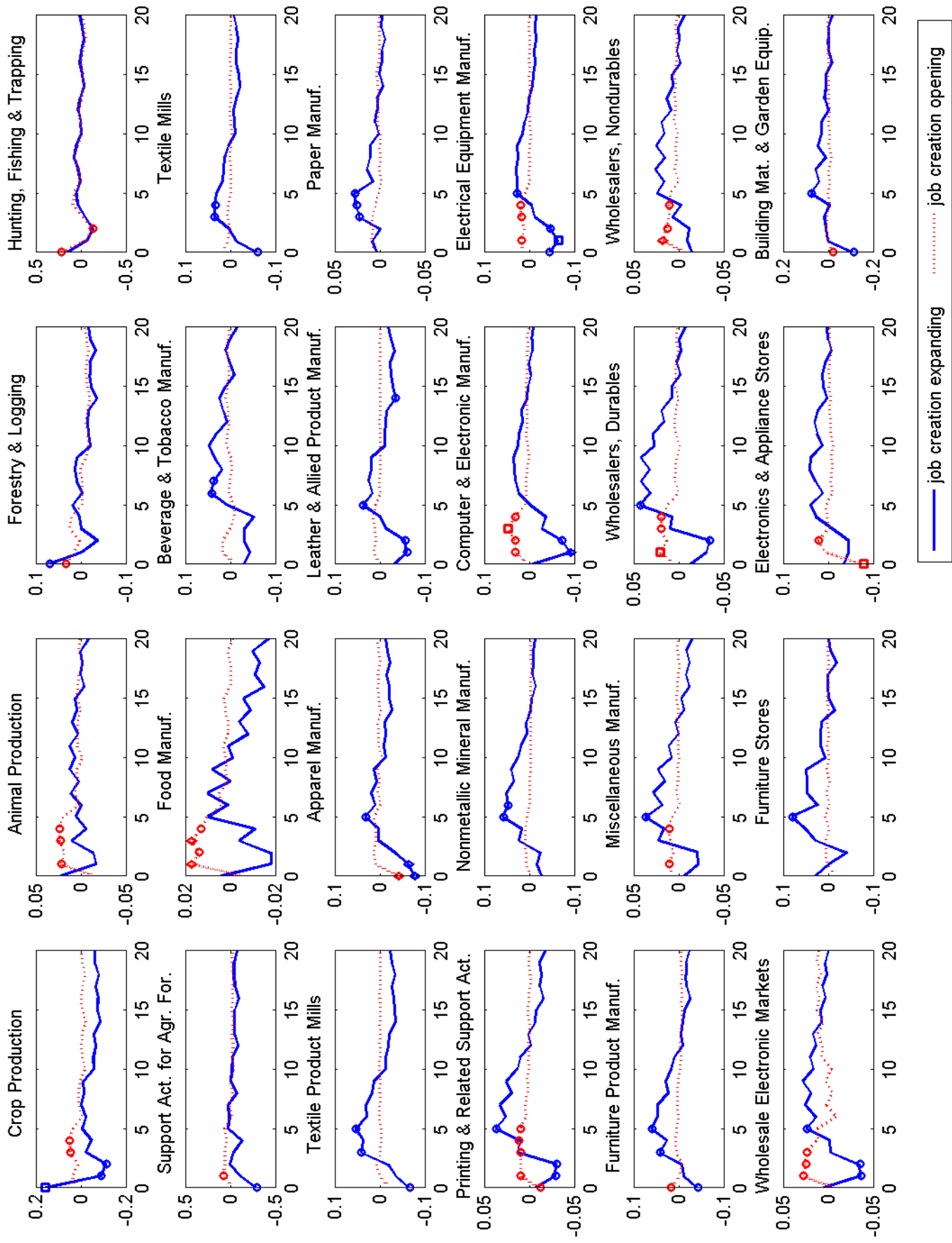
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.2a: Responses of job creation from expanding and opening establishments to a negative oil price shock of 1 s.d.



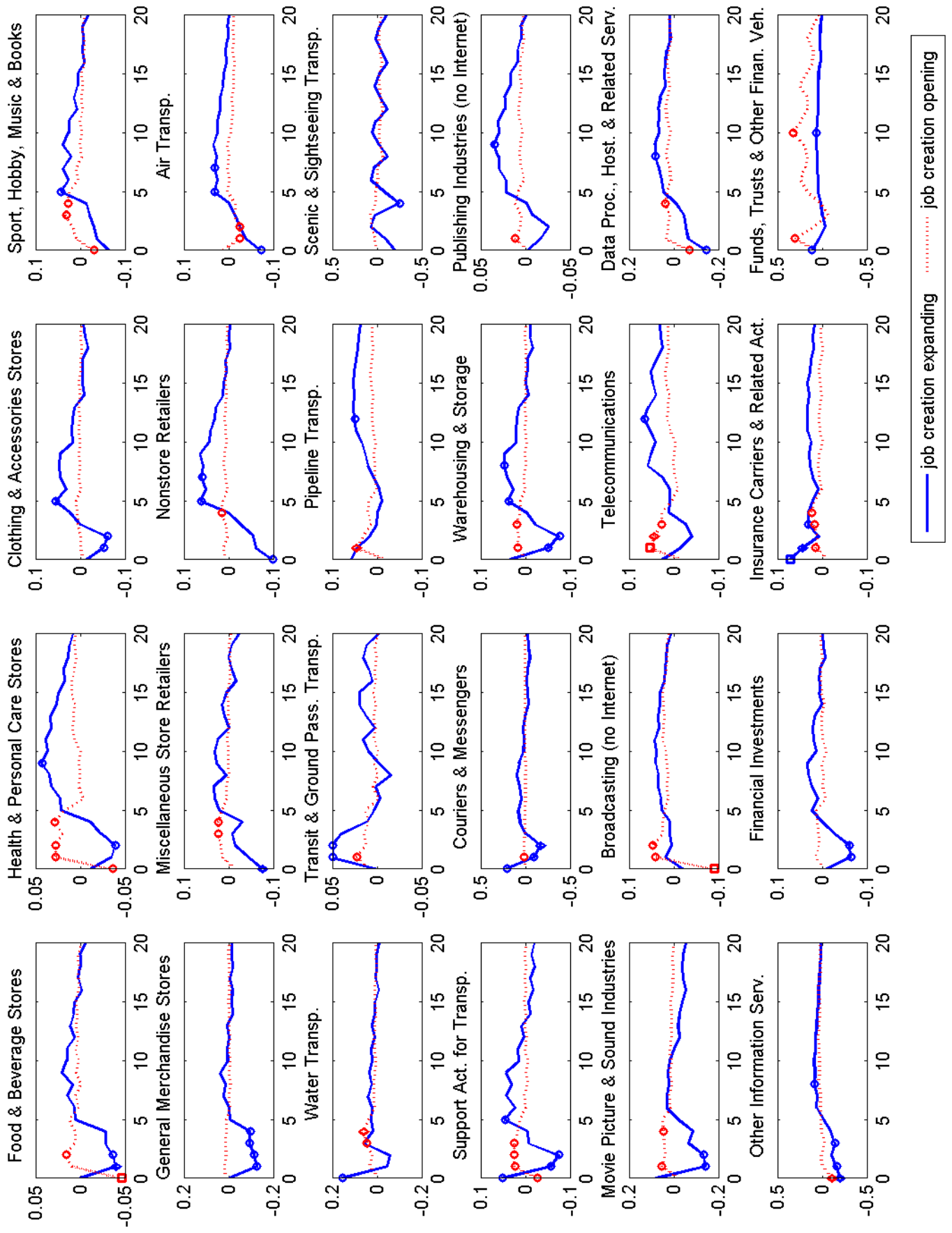
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.2b: Responses of job creation from expanding and opening establishments to a negative oil price shock of 1 s.d



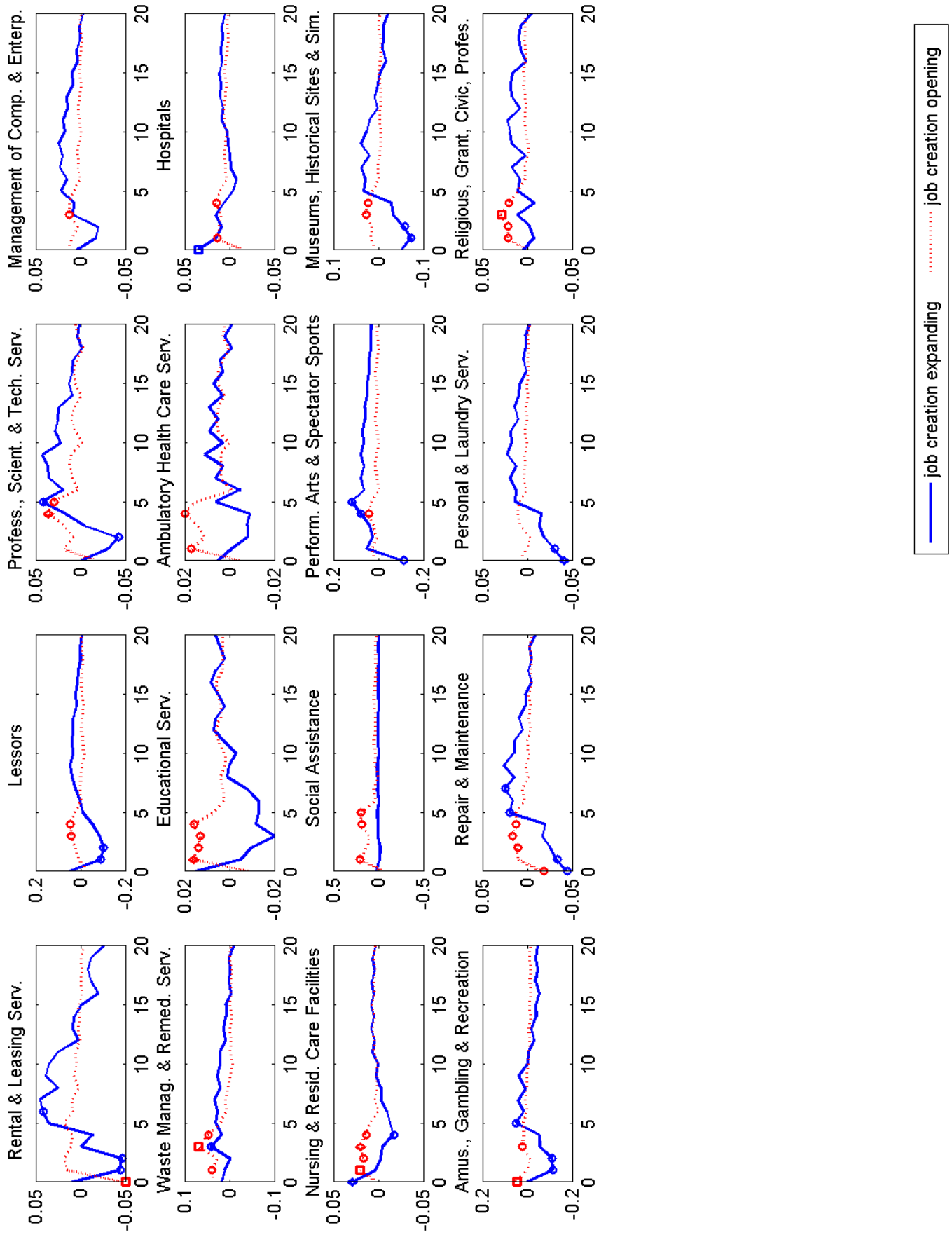
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.2c: Responses of job creation and opening establishments to a negative oil price shock of 1 s.d.



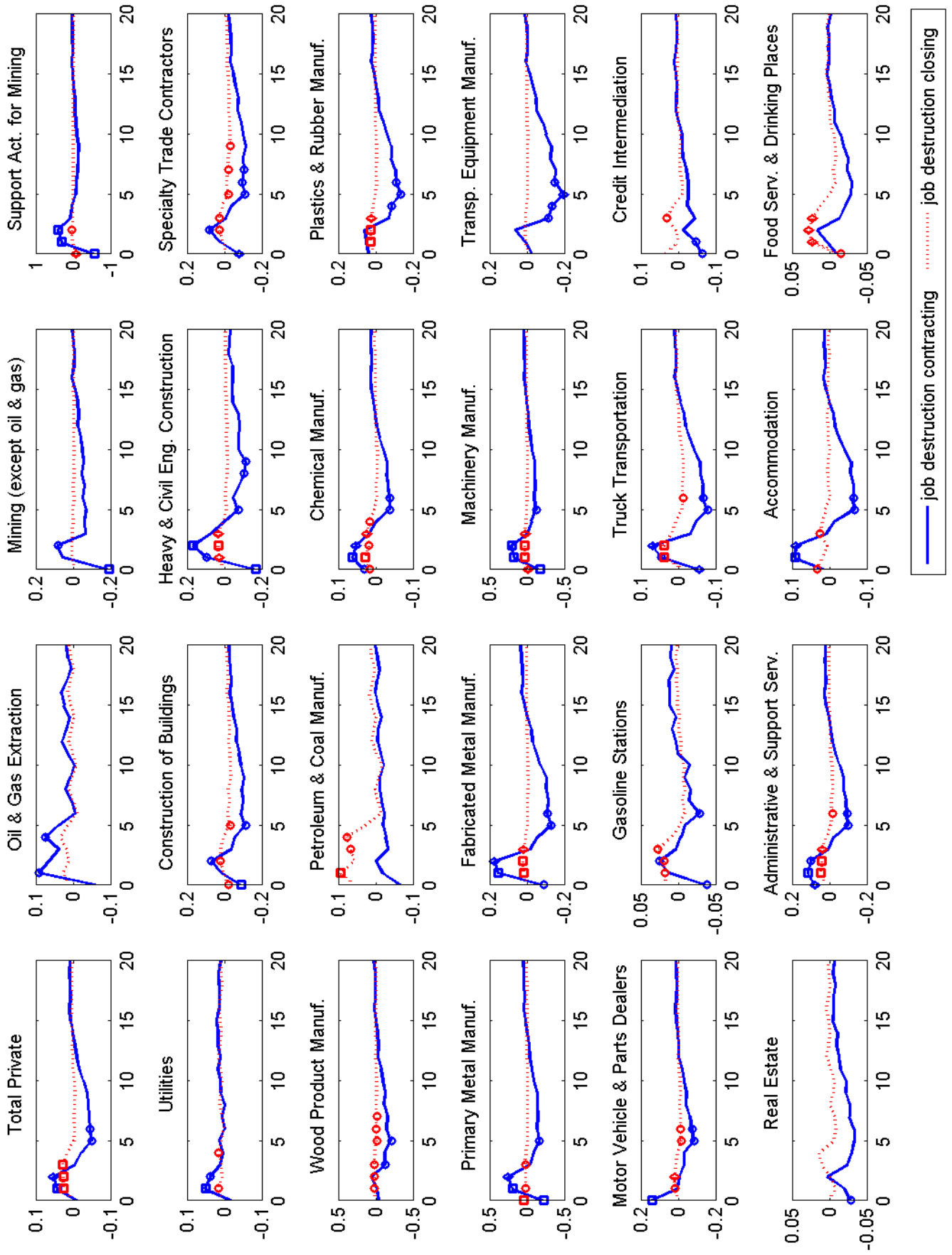
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Figure A.2d: Responses of job creation from expanding and opening establishments to a negative oil price shock of 1 s.d.



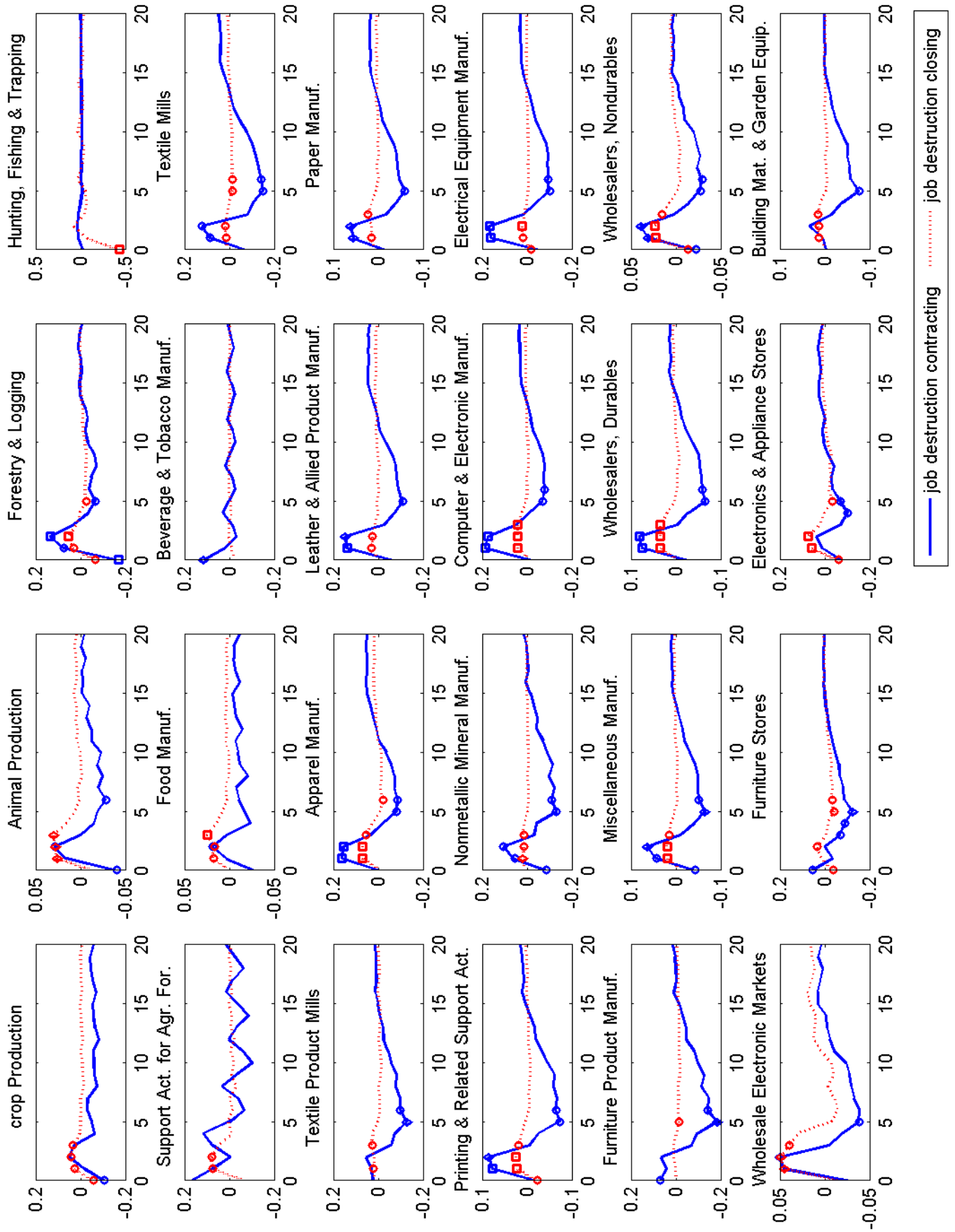
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.3a: Responses of job destruction from contracting and closing establishments to a negative oil price shock of 1 s.d.



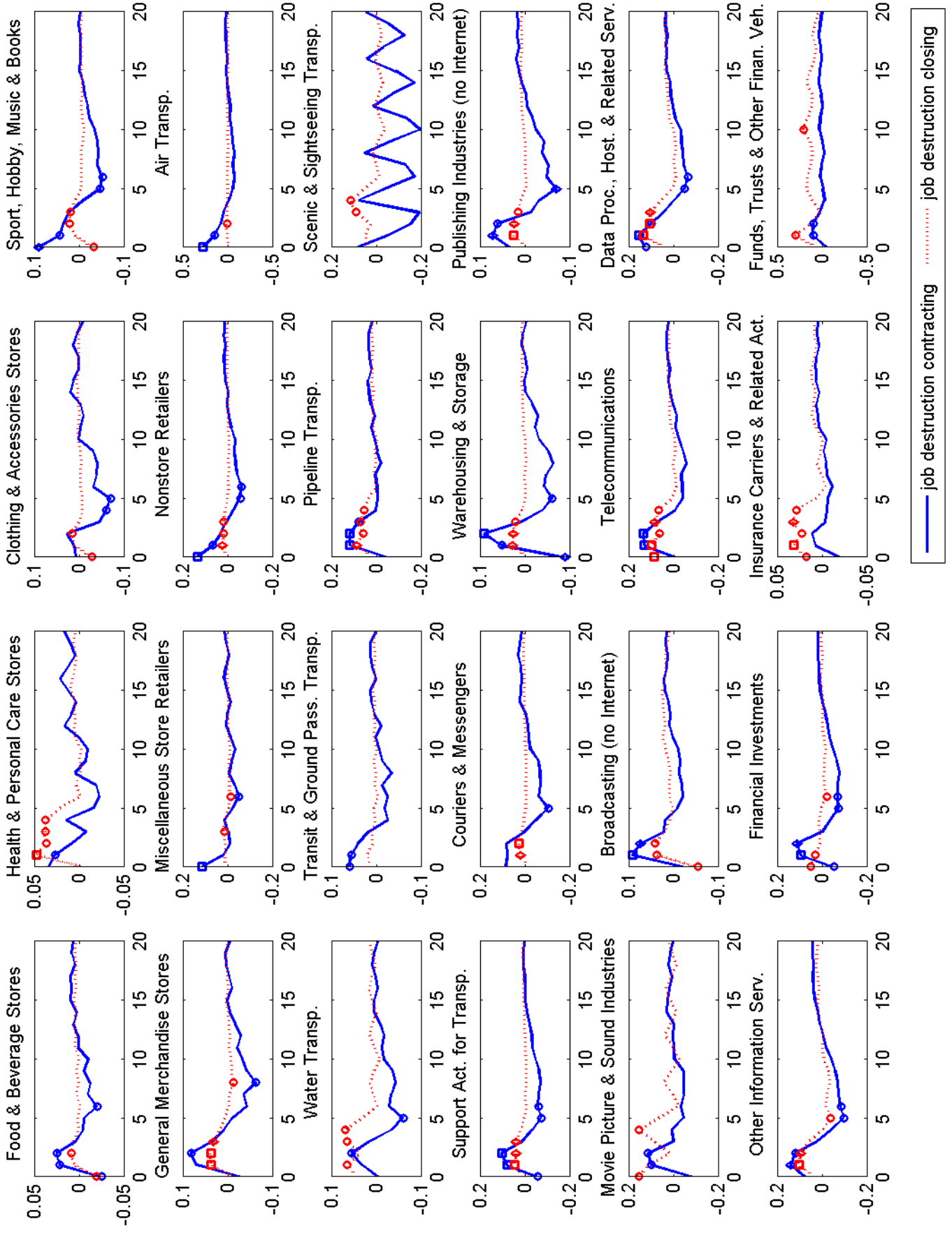
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.3b: Responses of job destruction from contracting and closing establishments to a negative oil price shock of 1 s.d.



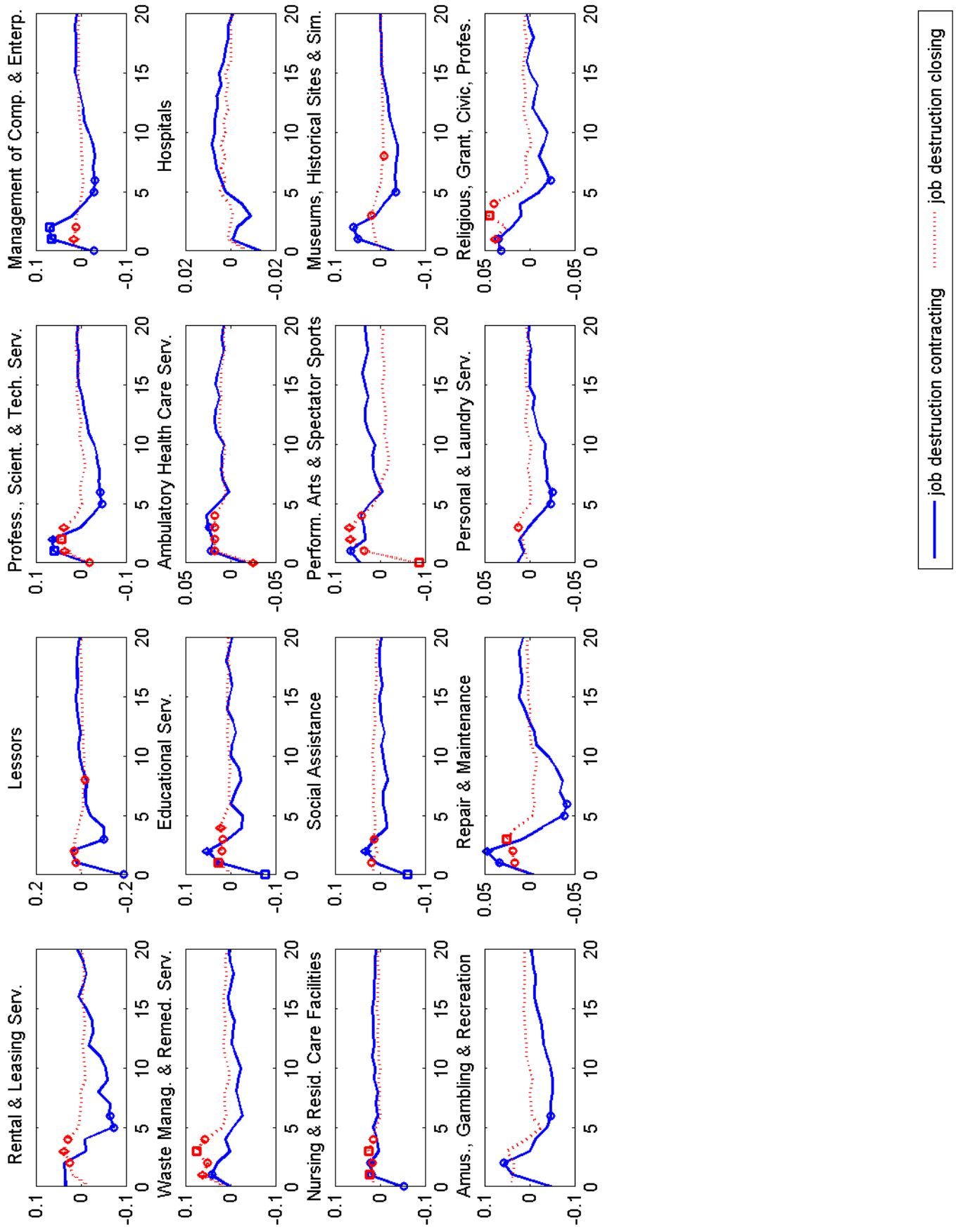
Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.3c: Responses of job destruction from contracting and closing establishments to a negative oil price shock of 1 s.d.



Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively

Figure A.3d: Responses of job destruction from contracting and closing establishments to a negative oil price shock of 1 s.d.



Notes: Squares, diamonds and circles represent significance at the 5%, 10% and 32%, respectively